



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

GENERAL INDEX.

The most important classified entries will be found under Contributors, Journals, Hosts, Personals, and Reviews. New names and names of new genera, species, and varieties are printed in **bold-face type**; synonyms in *italics*.

A

Abasoloa *boarda*, Williams on 73
 Abronia, Rydberg on 146
 Absorption, Nathansohn on 372
 Acacia, *anisophylla* 120; *crassifolia* 120; *farnesiana* 118; *filicina* 119; *Greggii* 119; *tequilina* 121
 Acanthaceae, Lindau on 73
 Achlya *americana* 236; *americana cambrica* 236
 Adenodolichos, Harms on 73
 Aecidium, *Ellisii* 20; *Impatientis* 18; *Jamesianum* 18; *Peckii* 13; *Pteleae* 16; *Ranunculacearum* 20; *Sambuci* 14; *Smilacis* 20; *Solidaginis* 21; *verbenicola* 16
 Agriculture, appropriation for U. S. Dept. of 374
 Agrostemma *Githago*, Cook on ovular archesporium 297
 Albugo, *Bliti* 246; *candida* 246; *Lepigonii*, Ruhland on 221; *Portulacae* 246; *Tragopogonis* 246
 Aletris, Northrop on 146
 Algae, chemical stimulation 83; collecting in the Hawaiian Islands, Tilden on 368; in Japan, Yendo on uses and distribution of marine 368; Reed on 229
 Allen, T. F., death of 79
 Allionia, Rydberg on 146
 Allioniella, Rydberg on 146
 Allium, *Cepa*, Husek on starch in root-cap of 141; Copeland on geotropism of 63; Neubert on nutations of 63
 Allocarya, Piper on new species of 72
 Alnus *glutinosa*, Trottier on 301
 Amaranthus, nutation 366
 Ambrosia *artemisiaefolia*, nutation 365
 Amelanchier, *botryapum* 434; *obovatis* 434
 Amoebae *Volvox*, Molisch on 442
 Anatomy, of fossil plants, Weiss on 64; of the root of *Selaginella*, Harvey-Gibson on 66
 Andrews, E. F., "Botany all the year round" 439

Andrews, F. N., work of 143
 Andrews, L., personal 232
 Andropogon, *alopecuroides* 215; *argyreus* 215; *divaricatum* 215; *insularis* 216; *nutans* 216; *ternatus* 215
 Anguria, Northrop on 146
 Annales Mycologici 220
 Apocynum, Greene on new species of 72
 Araliaceae, Harms on 73
 Archegonium, of *Mnium*, two eggs in 136
 Archesporium, of *Agrostemma Githago*, Cook on 297
 Arctostaphylos, Piper on new species 72
 Aristolochia *Siphon*, Perrot on excrescences of 76
 Arthur, J. C., 10, 292; personal 150, 152; work of 73, 222
 Ascidia, in *Ulmus campestris*, Trottier on 301; of *Ficus*, DeCandolle on 73
 Ascomycetes, phylogeny of 331; coenogametes of 327
 Ashe, W. W., 433
 Aso, K., work of 143
 Aspergillus *niger*, inulase in 24; Kosytschew on respiration of 69
 Asplenium *pinnatifidum*, Copeland on 76
 Assimilation, Butkewitsch on proteid 298
 Aster, Piper on new species of 72
 Asterogonium, Sydow on 299
 Ayres, H. B., work of 149

B

Bacteria, chemical stimulation 83; Molisch on phosphorescent 369
 Bailey, L. H., personal 303
 Barker, work of 344
 Barnes, C. R., 220, 222, 226, 296, 297, 369, 438, 440, 441; personal 150, 152
 Barnhart, J. H., personal 231
 Bartholomew, E., work of 146
 Battareopsis, Hennings on 146
 Beal, W. J., personal 375
 Benecke, W., work of 443
 Bermuda, Biological Station 448
 Bergen, J. Y., 350, 416

Berlese, A. N., death of 375
 Bescherelle, Émile, death of 375
 Bessey, C. E., work of 147
 Bessey, E. A., 218
 Bidens, Eatoni, Fernald on 300; nuta-
 tion in 363
 Billings, F. H., 134
 Bishop, J. N., personal 232
 Bissel, C. H., personal 232
 Blackman, V. H., work of 441
 Bolley, H. L., personal 375
 Boppe, L., and Joylet "Les Forêts" 140
 Botanical Garden, Michigan 78
 Botanical Library of A. Jordan 231
 Botanisches Litteraturblatt 78
 Botrychium, Underwood on 223
 Boulger, G. S., "Wood" 368
 Bower, F. O., 285; theory of steriliza-
 tion in sporophyte 285; work of 300,
 440
 Bray, W. L., work of 147
 Breuner, W., work of 141
 Britcher, work of 300
 Britton, N. L., personal 376; work of
 300
 Britton, W. E., personal 232
 Bromeliaceae, Mez on 222
 Brongniartia 128; intermedia 130;
 sericea 130
 Bryhn, N., work of 146
 Buckleya Quadriala, Kusano on para-
 sitism of 63
 Bumium Bulbocatanum, Schmid on
 cotyledons of 69
 Burgess, E. S., "History of pre-Clusian
 botany" 61
 Bush, B. F., work of 147
 Bussea, Harms on 73
 Butkewitsch, W., work of 298
 Butters, F. K., 427

C

Calliandra grandiflora 126
 Campbell, D. H., personal 152
 Camus, work of 76
 Cannon, W. A., personal 151, 152, 376;
 work of 445
 Capnodiopsis, Hennings on 146
 Capparidaceae, Gilg on 73
 Capsella Bursa-pastoris 141
 Carbon dioxide, evolution of 81, 160
 Carex, Holm on 72, 440
 Carica papaya, Mendel on enzyme of
 65; Penzigi on ascidia of 74
 Carnegie Institution, desert botanical
 laboratory 151, 376
 Carya olivaeformis, chalazogamy in 134
 Cassia, 117; absus 118; bauhinoïdes
 123; Lindheimeriana 124; multiflora
 124; nictitans 122; Northrop on 146;
 Roemeriana 117
 Catesbeia, Northrop on 146
 Celakovský, L., personal 78
 Cell, Matruhot and Molliard on freez-
 ing 225; contents and centrifugal
 force, Andrews on 143; wall, Krae-
 mer on structure of 65
 Central America, plants from 1
 Centrifugal force and cell contents,
 Andrews on 143
 Centrosomes, Nemec on 221
 Cephaliophora 157; irregularis 158;
 tropica 158
 Cephalotaxus 186
 Ceratophyllum submersum, Strasburger
 on 71
 Ceratostoma, Nichols on 328
 Ceratozamia robusta 185
 Chaenotheca, Urban on 73
 Chalazogamy in Carya olivaeformis 134
 Chamberlain, C. J., 68, 69, 71, 77, 184,
 220, 221, 223, 224, 225, 228, 370, 371,
 441, 443
 Chelidonium majus, Cushman on 301
 Chemistry of plant life, Aso on 143
 Chlorophyceae, Schmidle on 73
 Chlorophyll in etiolated leaves, Palladin
 on 66; Monteverde on 369
 Chodat, R., work of 146
 Chondria crassicaulis, Okamura on
 vegetative multiplication 298
 Chromatin, Häcker on 443
 Chromosomes, behavior of 250
 Chrysanthemum Leucanthemum, Trot-
 tier on 301
 Chrysler, M. A., 229, 370, 441
 Chrysotomnus, Green on new species
 of 72
 Cladonia formations 195
 Clark, J. F., personal 152
 Clements, F. E., personal 447; work of
 147, 300; "Greek and Latin in bio-
 logical nomenclature" 63
 Clinton, G. P., personal 152
 Clusia **Salvini** 1
 Cockerell, T. D. A., work of 222
 Codium tomentosum, Nathansohn on
 372
 Coenocentrum of Saprolegnia 236
 Coenogamete, homologies of 320; ori-
 gin of 323; of Ascomycetes 327
 Coker, W. C., 135; personal 152
 Collins, F. S., work of 222
 Color in leaves, Molisch on 220
 Conard, H. S., work of 76
 Congress, International Botanical in
 Vienna 303

Coniferales 186; Schumann on flowers of 370
 Connation in *Trifolium pratense*, White on 300
 Contributors: Arthur, J. C., 10, 292; Ashe, W. W., 433; Barnes, C. R., 220, 222, 226, 296, 297, 369, 438, 440; Bergen, J. Y., 350, 416; Bessey, E. A., 218; Billings, F. H., 134; Bower, F. O., 285, 440; Butters, F. K., 427; Chamberlain, C. J., 68, 69, 71, 77, 184, 220, 221, 223, 224, 225, 228, 370, 371, 441, 443; Chrysler, M. A., 229, 370, 441; Coker, W. C., 135; Copeland, E. B., 68, 81, 160, 227, 297; Coulter, J. M., 60, 61, 62, 63, 64, 65, 67, 70, 140, 145, 184, 222, 295, 296, 297, 298, 371, 372, 441; Cowles, H. C., 147, 293, 295; Davenport, C. B., 437; Davis, B. M., 221, 223, 229, 233, 298, 299, 320, 368; Dean, A. L., 24; Fink, 195; Greenman, J. M., 214; Harris, J. A., 73, 300; Hefferan, Mary, 437; Hitchcock, A. S., 215, 283, 442; Howe, C. D., 140; Jeffrey, E. C., 64, 66, 145; Land, W. J. G., 442; Lawson, A. A., 305; Livingston, B. E., 36, 64, 65, 66, 68, 69, 70, 140, 142, 143, 298, 369, 370, 372, 441, 444; Long, W. H., 111; MacMillan, C., 445; Mottier, D. M., 250; Reed, H. S., 209; Sargent, C. S., 99, 377; Schneider, A., 56; Simons, Etoile B., 228; Smith, J. D., 1; Snow, Laetitia M., 143, 444; Stevens, Adeline C., 405; Stevens, F. L., 363, 405; Thaxter, R., 153; Went, F. A. F. C., 432; Westgate, J. M., 139, 141, 142; Whitford, H. N., 59, 60
 Cook, M. T., work of 297
 Cook, M. C., personal 447
 Copeland, E. B., 68, 81, 160, 227, 297; work of 76
Corydalis, Schmid on cotyledons of 69
 Cotton, Cannon on hybrid 445
 Coulter, J. M., 60, 61, 62, 63, 64, 65, 67, 70, 140, 145, 184, 222, 295, 296, 297, 298, 371, 372, 441; personal 374
 Coulter, S. M., personal 447
 Coville, F. V., personal 78, 151, 376
 Cowles, H. C., 147, 293, 295
Craspedorrhachis 284; *Menyhartii* 285
Crassopetalum, Northrop on 146
Crataegus, *apiomorpha* 386; *apposita* 103; *arcana* 101; *arctuata* 108; *Arduennae* 377; *assurgens* 382; Boyntoni 105; *Canadensis* *obovalis* 434; *Canbyi* 100; *coccinea* *rotundifolia* 395; *conjuncta* 379; *cordata* 110; *corporea* 403; *corusca* 379; *cuprea* 105; *Crus-galli* 99; *Crus-galli capillata* 100; *Crus-galli oblongata* 99; *cyanophylla* 387; *dela-wrensis* 102; *dissona* 379; *divida* 401; *Egani* 390; *elongata* 380; *Ferrissii* 394; *Gaultii* 397; *habilis* 435; *Hillii* 384; *hystricina* 433; *intricata* 104; *laxiflora* 400; *longispina* 398; *lucorum* 394; *magniflora* 383; *mollis* 379; *nemoralis* 104; *Oxyacantha* 108, 110; *paucispina* 391; *pedicellata* 386; *Pennypackeri* 100; *pentasperma* 436; *Peoriensis* 377; *praeacoqua* 394; *pruinosa* 101, 379; *punctata* 106, 379; *rutila* 399; *sera* 379; *sertata* 381; *sextulis* 390; *stolonifera* 109; *subrotundifolia* 394; *succulenta* 434; *tarda* 302; *Tatnalliana* 106; *tenella* 108; *tomentosa* 395; *trachyphylla* 388; *uniflora* 110; *vegeta* 396; *Wilkinsonii* 435; Ashe on new species of 433; Sargent on new species of 73, 300, 377
 Cristation in ferns 300
 Crossland, Cyril, work of 297
Croton, *paniculatus* 7; *pyramidalis* 7
 Cruciferae, Guignard on double fertilization in 141
 Curtis, C. C., personal 152
 Cushman, work of 301
 Cyanophyceae, Molisch on buoyancy of 440; nuclear structure 306; Schmid on 73
Cycas, *circinalis* 184; *revoluta* 184; *sphaerica* 185
Cyclamen persicum, Schmid on cotyledon of 69
Cycloschizion, Hennings on 73
Cyclospathe, Northrop on 146
Cynomorium coccineum, Juel on 77
 Czapek, F., work of 222

D

Dactylis cynosuroides 216
 Dame, L. L., death of 447
Danaea, Underwood on 146
 Dangeard, P. A., work of 221, 300
 Darwin, F., work of 441
 Davenport, C. B., 437
 Davis, B. M., 221, 223, 229, 233, 298, 299, 320, 368; personal 304
 Davis, C. A., personal 375
 Davy, J. B., personal 231
 Dean, A. L., 24
 DeCandolle, A., work of 73
 Deherain, P. P., personal 78

Denke, P., work of 371
 Desert Botanical Laboratory of Carnegie Institution 151
 Desmanthus 117
Dianthera, *latifolia* 6; *sulfurea* 6
 Dichapetalaceae, Engler and Ruhland on 73
 Dickey, A. E., personal 150
 Dicotyledons with one cotyledon 69
Dicraeopetalum, Harms on 73
Dictyota, Hunger on 140
Digitalis purpurea, Focke on abnormal flowers of 301
 Dilleniaceae, Gilg on 73
Dipodascus Juel on 223, 328, 345
 Dischidia, Thistleton-Dyer on 75
 Dorsiventrality, Willis on 145
 Double fertilization, Eichler on 76
Depanolejeunea, Evans on 222
 Druery, work of 300
 Dunn, Louise B., personal 150
 Durand, E. J., personal 152

E

Eames, E. H., personal 232
Echinodorus parvulus, Robinson on 300
 Ecology, Breuner on 141; Fitzpatrick on 141; Harshberger on 143; Hegi on 142; literature on 147; of Kent Co., Michigan, 36; of lichens 195; of Mediterranean region 350, 416; Penzig on 228; Willis on 145
 Egg cells in archegonium of *Mnium* 136
Ehretia, Fernald on 73
 Eichler, A., work of 76
Eleocharis *Smallii*, Britton on 300
 Ellis, J. B., work of 146
 Embryo-sac, homology of the mother-cells 250; of *Monotropa uniflora*, Shibata on 226
 Embryogeny, Murbeck on 228; of *Hypocoum procumbens*, Guignard on 371; of *Zamia* 184
 Emmerling, O., personal 374
 Endodermis 145
 Engler, A., work of 73; "Syllabus der Pflanzenfamilien" 297; and Goetze "Vegetationsansichten aus Deutsch-ostafrika" 295; and Prantl "Die natürlichen Pflanzenfamilien" 297
 Enteromorpha, Collins on 222
 Enzymes, Aso on oxidizing 144; inulase 24
Ephedra 190
Equisetum limosum, nuclear membrane 307
Erianthus, *alopecuroides* 215; com-

pactus 216; *hiemalis*, Schmid on cotyledons of 69; *saccharoides* 216
Erigeron, Greene on new species of 72
Eriogonum, Greene on new species of 72
Erythroxylon, Northrop on 146
Eupatorium hypomalacum 4; Northrop on 146; *pansamalense* 4; *pinabetense* 4; *Tuerckheimii* 4
Euphorbia *Cyparissias*, Trottier on 301
Euthamia, Greene on 72
 Evans, W. H., personal 78, 79, 232; work of 222
 Excrescences of *Aristolochia* *Siphon*, Perrot on 76
 Excretion, Nathansohn on 372

F

Fagus silvatica, Trottier on 301
Falcata comosa 405
 Fasciation, in *Lilium Henryi*, Henry on 300; in the pineapple, Harshberger on 75; in the sweet potato, Conard on 76; Trottier on 301
Faxonanthus 214; Greenman on 73
 Fernald, M. L., personal 232; work of 72, 73, 300
 Fernald, B. E., "Economics of forestry" 367
 Ferns, Copeland on 76; cristation in 300
 Ferraris, T., work of 63
 Fertilization, Guignard on double among *Cruciferae* 141; of *Hamamelis virginiana*, Shoemaker on 67
Ficus, DeCandolle on ascidia of 73; Hollick on 300; Treub on parthenogenesis of 67
 Fink, Bruce 195; personal 231; work of 149
 Fischer, A., "Vorlesungen über Bakterien" 437
 Fitch, C. H., work of 147
 Fitzpatrick, work of 141
 Fixing fluid, Worcester's 209
 Flora, of Switzerland, Hegi on 142
 Flowers, of Coniferales, Schumann on 370; of *Digitalis purpurea*, Focke on abnormal 301; of *Gladiolus segetum*, Penzig on 76; Worsdell on origin of 298
 Floyd, work of 300
 Focke, work of 301
 Forbes, F. B., work of 146
 Forests, of Iowa, Shimek on 147; of Nebraska 231; relation to stream flow 150
 Forestry, 78, 79; at Sharon Biological Observatory 231; Quarterly 79; at University of California 448

Formations, Bessey on plant 148
 Fossil plants, Weiss on anatomy of 64
 Freezing of tissues, Matruhot and Moliard on 225
 Friedel, Jean, work of 70
Fritillaria persica 257
 Fungi, about Austin, Texas, Long on 147; enzymes in 24; hosts of 11, 117; Juel on 223; new 111, 153; stimulating action of poisons on 81; and algae, Reed on 229

G

Gaillardia, new species of, Greene on 72
Galega officinalis, Trottier on 301
 Galls, Camus on 76
Ganong, W. F., personal 152
Garden, Annual Report of Missouri Botanical 232
 Geotropism 68; Czapek on 222; Miehe on 142
Gerassimow, J. J., work of 224
 Gerhardt, Paul, "Handbuch des deutschen Dünenbaues" 139
 Gerneck, R., work of 444
 Gifford, John, "Practical forestry" 60
 Gilg, W., work of 73
Ginkgo 190
 Ginzberger, A., personal 374
Gladiolus segetum, Penzig on flower of 76
Glaux maritima, Fernald on 72
Gleditschia triancanthus 120
Glucosides, Weevers on 370
Gnetales 190
 Gobi, C., personal 78
 Goebel, K., personal 231
 Goetze and Engler, "Vegetationsansichten aus Deutschostafrika" 295
 Graebner, P., "Die Heide Norddeutschlands" 293
 Grasses of Minnesota, Wheeler on 297; North American 215, 283; Ward on *Uredo* dispersa in 372
 Graves, C. B., personal 232
 Greene, E. L., work of 72
 Greenman, J. M., 214; work of 73
 Growth, and chemical stimulation 81, 160; Wiesner on direction of 64
 Guatemala, plants from 1
 Guignard, L., work of 141, 371
Guignardia alaskana, Reed on 230; *Ulvae*, Reed on 229
Guzmania Donnellsmithii 9; Zahnii 9
Gymnogramme, Underwood on 65

H

Häcker, V., work of 443

Hall, W. L., work of 148; and Von Schrenk, "The hardy catalpa" 61
 Hallier, H., work of 223
Hamamelis virginiana, Shoemaker on fertilization of 67
 Hancockia, Forbes and Hemsley on 146
 Harger, E. B., personal 232
 Harms, H., work of 73
 Harris, J. A., 73, 300
 Harshberger, J. W., work of 75, 143
 Hartley, C. P., work of 64
 Harvey-Gibson, R. J., work of 66
 Hassea, Zahlbrückner on 73
 Heald, F. D., personal 303
 Hedgecock, G. G., work of 148
 Hefferan, Mary, 437
 Hegi, Gustav, work of 142
 Heinricher, E., personal 374
Helianthus tuberosus, enzymes in 24
Helictetes, Northrop on 146
Heliotropism, Northrop on 146
 Hemsley, W. B., work of 146
 Hennings, P., personal 374; work of 73, 146, 300
 Henry, work of 300
Heteroccephalum 157; *aurantiacum* 157
Heteroplegma, Clements on 300
 Heydrich, F., work of 299
 Hildebrand, F., "Ueber Aehnlichkeiten im Pflanzenreich" 295
 Hitchcock, A. S., 215, 283, 442; work of 222; "Leptochloa" 439
 Hollick, A., personal 152, 300
 Holm, Theo., work of 72, 440
 Holtermann, C., personal 374
 Holway, E. W. D., work of 73, 222
 Holzinger, J. M., work of 149
 Hosts, of fungi 11, 117
 Howe, C. D., 140
 Howell, Thomas, personal 375
 Hybrid cotton, Cannon on 445
 Hybridization, International conference on 79
Hydrodictyon, Timberlake on swarm spores of 68
Hymenocallis, Northrop on 146
Hypecoum procumbens, Guignard on embryogeny of 371
 Hypertrophy in *Alnus glutinosa*, Trottier on 301
Hyphomycetes, North American 153
 Hunger, F. W. T., work of 140
 Husek, G., work of 141

I

Ilea, Collins on 222
Indigofera, cuernavacana 130; *densifolia* 128; Palmeri 130

Inulase, experimental studies on 24
 Iowa, Pammel on trees of 147; Shimek
 on forest trees in 147
 Iridaceae, Ferraris on 63
 Irritability, Massart on 67

J

Jaap, Otto, "Fungi Selecti Exsiccati"
 375
 Jeffrey, E. C., 64, 66, 145
 Jepson, W. L., personal 448
 Jordan, Alexis, library of 231; "Icones
 Florae Europae" 231
 Journals: Annales Mycologici 220;
 Botanisches Litteraturblatt 78; The
 Forestry Quarterly 79; Revue de
 Botanique Systematique et de Géo-
 graphie Botanique 303
 Joylet and Boppe "Les Forêts" 140
 Juel, H. O., work of 77, 223, 328, 345

K

Kamienski, F., work of 73
 Karsten and Schenck "Vegetations-
 bilder" 294
 Kelps of Juan de Fuca, MacMillan on
 369
 Kent Co., Michigan, ecology of 36
 Kerner and Oliver, "Natural history of
 plants" 150
 Kew, new building for herbarium 447
 Kirkwood, J. E., personal 152
 Kostytschew, S., work of 69
 Kraemer, H., work of 65, 440; "Botany
 and pharmacognosy" 60
 Kränzlin, F., work of 73
 Krugiodendron, Urban on 73
 Kurzwelly, W., work of 442
 Kusano, S., work of 63
 Küster, Ernst "Pathologische Pflanzen-
 anatomie" 218

L

Laboratory, Marine Biological at Woods
 Hole 304; Desert Botanical of
 Carnegie Institution 151, 376; in
 tropics, new botanical research 432;
 of Ohio State University, Lake 304
 Laboulbeniaceae and phylogeny 338
 Laciaria, Greene on new species of
 72
 Lagenostoma Lomaxi, Oliver and Scott
 on 441
 Laminariaceae, Miyabe on 445
 Land, W. J. G., 442
 Lange, D., work of 149
 Lawson, A. A., 305

Leaf variation in *Liriodendron Tulipi-
 fera* 135
 Leaves, Breuner on oak 141; Cushman
 on abnormal 301; Molisch on color
 in 220
 Leguminosae, Harms on 73; nutation
 366
 Leimbach, G., personal 78
 Lentibulariaceae, Kamienski on 73
 Lespedeza, nutation 366; sativum 141
 Leptochloa, Hitchcock on 222
 Léveillé, H., "Monographie du genre
 Onothera" 296; work of 72
 Leucena, *diversifolia* 126; lanceolata
 121
 Library, DePauw University Biological
 150; University of Chicago Bio-
 logical 150
 Lichens, lichen-like associations of
 fungi and algae, Reed on 229; and
 phylogeny 338; ecology of 195; of
 Minnesota, Fink on 149; Zahlbrück-
 ner on California 73
 Lilium, *candidum* 252; *Martagon* 251,
 252; *speciosum* 257
 Limpricht, K. G., death of 150; "Die
 Laubmoose" 296
 Linaria spuria, Vöchtung on 441
 Lindau, G., personal 374; work of 73
 Linum, Northrop on 146
 Liriodendron *Tulipifera*, leaf variation
 in 135
 Livingston, B. E., 36, 64, 65, 66, 68,
 69, 70, 140, 142, 143, 298, 369, 370,
 372, 441, 444
 Lloyd, F. E., personal 152
 Long, W. H., 111; work of 147
 Longyear, B. O., personal 375
 Lonicera, *Piper* on new species of 72;
 Rehder on 73
 Lunularia cruciata, Benecke on 443
 Lupinus, *Piper* on new species of 72
Lycopodium rigidum, Bower on 300,
 440

M

Macbride, T. H., personal 152
 Macchiati, L., work of 226
 Macchie of the Neapolitan coast region
 350, 416
 MacDougal, D. T., personal 151, 152,
 376; "Influence of light and darkness
 upon growth and development" 292
 Mackenzie, K. K., work of 147
 MacMillan, Conway, 152, 445; work
 of 369
 Macrosporangium of *Yucca filamentosa*
 209

Magnolia, Hollick on 300
 Maiden, J. H., "Eucalyptus" 440
 Mangrove, Crossland on 297
 Mannan, Storer on 65
 Marloth, R., work of 298
 Marsilia, nucleus of spore cavity 137
 Massart, I., work of 62, 67
 Matruchot, L., work of 68, 225
 Maxon, W. R., personal 447
 McClatchie, A. J. "Eucalypts" 295
 McKenney, R. E., work of 70
 Medicago, nutation 366
 Mediterranean region, ecology of 350, 416
 Melampsora 11
 Melilotus alba, nutation 366
 Melochia *Bernoulliana* 2
 Mendel, L. B., work of 65
 Mertensia, Piper on new species of 72
 Mesophytes, Hedgecock on relation to water 148
 Mespilus Canadensis *obovalis* 434
 Metastelma, Northrop on 146
 Mez, C., work of 222
 Micrococcus phosphoreus, Molisch on 369
 Microsechium *compositum* 2
 Michigan Academy of Sciences 304
 Miche, H., work of 142
 Millardet, M., death of 303
 Miller, F. G., personal 447
 Millspaugh, C. F., personal 152; "Flora of the island of St. Croix" 61
 Mimosa, albida 122; fragrans 123
 Minnesota, Fink on lichens of 149; Holzinger on mosses in 149; species of Tuber 427; trees, Ayres on 149; Wheeler on vegetation of 149, on grasses of 297
 Missouri Botanical Garden, annual report 232
 Mitosis, in higher plants 250; of the primary nucleus in *Synchytrium decipiens* 405; in *Saprolegnia* 238
 Mitrulopsis, Peck on 300
 Miyabe, K., work of 445
 Minium, two egg cells in archegonium of 136
 Möbius, M., "Botanischmikroskopisches Praktikum" 369
 Molisch, H., work of 220, 369, 440, 442
 Molliard, M., work of 68, 225
 Monardella, Greene on 72
 Monascus, Barker on 344
 Monocotyledons, megasporangia of 210; Sargent on origin of 229; Schoutte on dendritic 370
 Monostroma, Collins on 222
 Monotropa uniflora, Shibata on embryo sac of 226
 Monteverde, N. A., work of 369
 Moraceae, Engler on 73
 Morgan, A. P., work of 146
 Morphology of spore-producing members 285
 Mosses in Minnesota, Holzinger on 149
 Mottier, D. M., 250
 Mucor stolonifer, Kostytschew on respiration of 69
 Müller, Karl, work of 146
 Multiplication of *Chondria crassicaulis*, Okamura on vegetative 298
 Murbeck, S., work of 228
 Murrill, W. A., work of 222, 300
 Myrstiphyllum, Northrop on 146

N

Naias major 252
 Naples, shrubs and undershrubs of 350
 Nathansohn, A., work of 372
 Nebraska, Bessey on trees in 147; forests of 231; trees, Hall on 148
 Nemec, B., work of 221, 297
 Neobuchia, Urban on 73
Neoravenelia 131; **Holwayi** 131
 Nephrodium marginale, Floyd on 300
 Neubert, R., work of 63
 Newcombe, F. C., personal 304, 375; work of 444
 New Jersey coast, Harshberger on ecology of 143
 Nichols, Miss, work of 328
 Northrop, Alice R., work of 146; "Flora of New Providence" 140
 Nucleus, Gerassimow on influence of 224; Nemec on fusion of 297; of Phycomycetes 339; relation of membrane to 305; of spore cavity in *Marsilia* 137; in *Synchytrium decipiens*, mitosis of primary 405
 Nutation, in *Bidens* 363; of *Allium*, Neubert on 63

O

Oak leaves, Breuner on 141
 Ocotea *tenera* 6
 Oedogonium, Fritsch on sporelings 299
 Ohio State University Lake Laboratory 304
 Oligocladius, Chodat and Wilczek on 146
 Oliver, F. W., work of 441
 Oogenesis in *Saprolegnia* 233, 320
 Oomycetes, development of 333
 Ophiogloea, Clements on 300
 Orchidaceae, Kränzlin on 73
 Orton, W. A., personal 152
 Oshima, K., work of 445
 Osmosis, Nathansohn on 372
 Overton, J. B., personal 303

P

Palladin, W., work of 66
 Pammel, L. H., work of 147
Panicum, Pilger on 73
 Papain, Mendel on 65
 Parthenogenesis of *Ficus*, Treub on 67
Passiflora coerulea, nuclear membrane 306; Trottier on 301
 Paurotis, Northrop on 146
 Peck, C. H., work of 300
Penicillium glaucum, inulase in 24
 Penzig, O., work of 74, 76, 228
Periblepharis, Van Tieghem on 72
Peronospora, Ruhland on 221
 Perrot, work of 76
 Personal: Allen, T. F., 79; Andrew, L., 232; Arthur, J. C., 150, 152; Bailey, L. H., 303; Barnes, C. R., 150, 152; Barnhart, J. H., 231; Beal, W. J., 375; Berlese, A. N., 375; Bescherelle, Emile, 375; Bishop, J. N., 232; Bissell, C. H., 232; Bolley, H. L., 375; Britton, N. L., 376; Britton, W. E., 232; Campbell, D. H., 152; Cannon, W. A., 151, 152, 376; Celakovsky, L., 78; Clark, J. F., 152; Clements, F. E., 447; Clinton, G. P., 152; Coker, W. C., 152; Coulter, J. M., 374; Coulter, S. M., 447; Coville, F. V., 78, 151, 376; Curtis, C. C., 152; Dame, L. L., 447; Davis, B. M., 304; Davis, C. A., 375; Davy, J. B., 231; Déherain, P. P., 78; Dickey, A. E., 150; Dunn, Louise B., 150; Durand, E. J., 152; Eames, E. H., 232; Emmerling, O., 374; Evans, A. W., 232; Evans, W. H., 78, 79; Fernald, M. L., 232; Firk, B., 231; Ganong, W. F., 152; Ginzberger, A., 374; Gobi, C., 78; Goebel, K., 231; Graves, C. B., 232; Harger, E. B., 232; Heald, F. D., 303; Heinricher, E., 374; Hennings, P., 374; Hollick, A., 152; Holtermann, C., 374; Howell, T., 375; Jordan, A., 231; Kirkwood, J. E., 152; Leimbach, G., 78; Limpricht, K. G., 150; Lindau, G., 374; Lloyd, F. E., 152; Longyear, B. O., 375; Macbride, T. H., 152; MacDougal, D. T., 151, 152, 376; MacMillan, C., 152; Maxon, W. R., 447; Millardet, M., 303; Miller, T. G., 447; Millspaugh, C. F., 152; Newcombe, F. C., 304, 375; Orton, W. A., 152; Overton, J. B., 303; Pinchot, G., 447; Pollard, C. L., 78; Pollock, J. B., 375; Porsch, O., 374; Pringle, C. G., 231; Reed, H. S., 447; Reineck, E., 78; Richards, H. M., 303; Rose, J. N., 152; Roth, F., 374; Schneider, A., 447; Schwindener, S., 231; Selby, A. D., 374; Setchell, W. A., 374; Shafer, J., 376; Shantz, H. L., 447; Smith, R. E., 374; Solms-Laubach, H. Graf zu 231; Spalding, V. M., 374; Stubenrauch, A. V., 448; Thaxter, R., 152, 231; Underwood, L. M., 231, 447; Wagner, A., 78; Webber, H. J., 78; Wieland, G. R., 303; Wilson, P., 376; Woods, A. F., 78; Woronin, M., 374. Pertz, Dorothea F. M., work of 441
Phanerogams, chemical stimulation 83
Phaseolus vulgaris, Raymond on 300
Phlox, Piper on new species of 72
Phoradendron, Northrop on 146
 Photosynthesis, Friedel on 70; Macchiati on 226; Treboux on 227
Phragmidium speciosum 17, 22
 Phycomyctes, nucleus of 339; phylogeny of 331
Phylanthus galeottinus 125
Phyllocladia, Preston on 76
 Phylogeny of Phyco- and Ascomycetes 331
 Phytoogeography 147; of Nebraska, Pound and Clements on 147
 Pierce, G. J., "Plant physiology" 303
 Pilger, R., work of 73
 Pinchot, G., personal 447, 448
 Pineapple, Harshberger on fasciation in 75
Pinus 190; *recurvata*, Rowlee on 300
 Piper, C. V., work of 72
Pithecellobium, Northrop on 146
Plagiochila, Stephani on 73, 222
 Plant breeding, International Conference on 79
Pleoravenelia 127; *brongniartiae* 130; *epiphylla* 128; *glabra* 127; *Hieronymi* 127; *Indigofera* 129; *laevis* 127; *Macowaniana* 127; *similis* 128; *talpa* 130; *tephrosiae* 127
Podocarpus 186, 190
Podophyllum peltatum 252
 Podostemaceae, Willis on 145
 Poisons, Kurzwelly on resistance to 442; stimulating action of 81; Treboux on 227
 Pollard, C. L., personal 78
 Pollen, homology of the mother cells 250
 Pollination, Hartley on 64; Massart on 62; of *Roridula*, Marloth on 298
 Pollock, J. B., personal 375
Polygonum divaricatum, Strasburger on 211; Léveillé and Vaniot on new species of 73

Polypodium vulgare, Copeland on 76
 Porsch, O., personal 374
 Postelsia 368
 Potato, Conard on fasciation in sweet 76
 Pound, Roscoe, work of 147
 Preston, C. E., work of 76
 Pringle, C. G., personal 231
 Proliferation 76; Trottier on 300
 Prosopis, juliflora 124, 132; velutina 124
 Proteaceae, Engler on 73
 Proteid assimilation, Butkewitsch on 298
 Protochlorophyll, Monteverde on 369
 Pseudobeltrania, Hennings on 146
 Pseudocadia, Harms on 73
 Pseudo-monocotyledons, Schmid on 69
 Pseudodropopis, Harms on 73
 Psilotocium, Clements on 300
 Psychotria *anomothyrsa* 3; *uliginosa* 3
 Pteris aquilina, Druery on 300
 Puccinia, amphigena 20, 23; *Atkinsoniana* 14; *Bartholomaei* 18; *Bolleyana* 14; *Caricis* 16, 22; *Caricis-Asteris* 15, 21, 22; *Caricis-Erigeronitis* 21, 23; *chloridis* 12; *Eleocharidis* 11; *emaculata* 12; *Helianthi* 17, 22; *Impatiens* 19, 23; *Jamesiana* 18, 22; *Muhlenbergiae* 11; *Paniculariae* 12; *Peckii* 13, 15, 22; *Polygoni-amphibii* 12; *purpurea* 12; *rubigovera* 19; *Sambuci* 15, 22; *Schedonardii* 11; *simillima* 20, 23; *Sporoboli* 12; *Stipa* 12; *subnitens* 19, 23; *verbenicola* 16, 22; *vexans* 18; *Vilfae* 16; *Windsoriae* 16, 22
 Pyronema, coenogametes of 327
 Pyropolyporus, Murrill on 300

Q

Quercus Rydbergiana, Cockerell on 222

R

Ranunculus, acer, Trottier on 301; acris, Cushman on 301; Ficaria, Schmid on cotyledons of 69
 Ravenelia 115; appendiculata 125; arizonica 124; *brongniartiae* 130; cassiacea 122; decidua 118; *epiphylla* 129, 131; expansa 121; Farlowiana 120; *fragrans* 123; *glanduliformis* 128; goyazensis 126; *Holwayi* 131; *indica* 117; *indigoferae* 129; *laevis* 127; *leucaenae* 126; Longiana 117; mesillana 122; mexicana 125; mimosae-sensitivae 121; opaca 120; Pazschkeana 127; *siliquae* 118

spinulosa 123; *tephrosiae* 131; *texana* 116; *texensis* 116; *verrucosa* 120; *versatilis* 118
 Raymondand, work of 300
 Reed, H. S., 209; personal 447
 Reed, Minnie, work of 229
 Rehder, A., work of 73
 Reineck, E., personal 78
 Respiration, and chemical stimulation 81, 160; Kostytschew on 69
 Revegetation of Trestle Island, Minnesota, Lange on 149
 Reviews: Andrews's "Botany all the year round" 439; Boppe and Joylet's "Les Forêts" 140; Boulger's "Wood" 368; Burgess's "History of pre-Clusian botany" 61; Clements's "Greek and Latin in biological nomenclature" 63; Engler's "Syllabus der Pflanzenfamilien" 297; Engler and Goetze's "Vegetationsansichten aus Deutschostafrika" 295; Engler and Prantl's "Die natürlichen Pflanzenfamilien" 297; Fernow's "Economics of forestry" 367; Fischer's "Bacteria" 437; Gerhardt's "Handbuch des deutschen Dünenbaues" 139; Gifford's "Practical forestry" 60; Graebner's "Die Heide Norddeutschlands" 293; Hall and Schrenk's "The hardy catalpa" 61; Hildebrand's "Ueber Aehnlichkeiten im Pflanzreich" 295; Hitchcock's "Leptochloa" 439; Karsten and Schenck's "Vegetationsbilder" 294; Kraemer's "Botany and pharmacognosy" 60; Küster's "Pathologische Pflanzenanatomie" 218; Léveillé's "Monographie du genre *Onothera*" 296; Limprecht's "Die Laubmoose" 296; MacDougal's "Influence of light and darkness upon growth and development" 292; Maiden's "Eucalyptus" 440; McClatchie's "Eucalypts" 295; Millspaugh's "Flora of the island of St. Croix" 61; Möbius's "Botanisch-mikroskopisches Praktikum" 369; Postelsia 368; Rogers's "Among green trees" 59; Roth's "First book of forestry" 60; Sargent's "Trees and shrubs" 62; Schneider's "Powdered vegetable drugs" 60; Seeman's "Salices Japonicae" 296; Stevens's "Introduction to botany" 438; Strasburger's "Das botanische Practicum" 219; Urban's "Symbolae Antillanae" 61; Von Schrenk's "A disease of the white ash" 296; Wiesner's "Die Rohstoffe des Pflanzenreiches" 220

Revue de Botanique Systématique et de Géographie Botanique 303
 Rhabdium, Dangeard on 300
 Rheotropism of roots, Newcombe on 444
 Rhizobium, *Frankii* 57; *mutabile*,
 mutability of 56
 Rhythm, Darwin and Pertz on 441
 Richards, F. M., personal 303
 Robinson, B. L., work of 300
 Rogers, Julia E., "Among green trees"
 59
 Roots, aerial of *Ficus*, Massart on 68;
 Czapek on geotropism of 222; New-
 combe on rheotropism and thigmotropism
 of 444; of *Selaginella*,
 Harvey-Gibson on anatomy of 66
 Roridula, Marloth on cross-pollination
 in 298
Rosa rubiginosa, Cushman on 301
 Rose, J. N., personal 152
 Roth, F., personal 374; "First book of
 forestry" 60
Rouliniella, Vail on 146
 Rowlee, W. W., work of 300
Rudicularia, Heydrich on 299
Rudgea ceratopetala 3; *micrantha* 4
 Ruhland, W., work of 73, 221
Ruhlandiella, Hennings on 300
Ruppia maritima 143; *rostellata*, Mur-
 beck on 228
 Rusts, Arthur and Holway on Ameri-
 can 73
 Rydberg, P. A., work of 146

S

Sabazia Michoacana, Williams on 73
Salix hippophaefolia, Camus on 76
 Salts, Gerneck on effect of 444
Saprolegnia, coenocentrum of 236; *de-
 clinia* 236; mitosis in 238; *mixta* 236;
 oogenesis in 233, 320; sporogenesis
 in 247
Saprolegniales, sexuality in 245
Sarcocneurum, Bryhn on 146
 Sargent, Ethel, work of 229
 Sargent, C. S., 99, 377; work of 73,
 300; "Trees and shrubs" 62
Saxifraga crassifolia, Penzig on ascidia
 of 74
Scapania, Müller on 146
Schedonnardus 284
 Schenck and Karsten "Vegetations-
 bilder" 294
 Schmid, B., work of 69
 Schmidle, W., work of 73
 Schneider, A., 56; personal 447; "Pow-
 dered vegetable drugs" 60
 Schneider, C. K., work of 442

Shoute, J. C., work of 144, 370
 Schumann, K., work of 370
 Schwendener, S., personal 231
Sclerospora, Ruhland on 221
 Scott, D. H., work of 441
Scytopezis, Clements on 300
 Seeds, chemical stimulation 83
 Seeman, O. von, "Salices Japonicae" 296
 Selby, A. D., personal 374
Selaginella, Denke on spores in 371;
 Harvey-Gibson on anatomy of root
 66; Underwood on 72
Senecio, Vaniot on new species of 73
 Setchell, W. A., personal 374
 Sexuality, Dangeard on 221; in *Sapro-
 legniales* 245
 Shafer, J., personal 376
 Shantz, H. L., personal 447
 Shibata, K., work of 225
 Shimek, B., work of 147
 Shoemaker, D. N., work of 67
 Shrubs, and undershrubs of Naples
 350, Schneider on winter condition
 442
Sideroxylon uniloculare 5
Silium superbum 301
 Simons, Etoile B., 228
Siphonales, phylogeny of 334
 Stephani, F., work of 73
Smilax aspera, Penzig on ascidia of 74
 Smith, J. Donnell, 1
 Smith, R. E., personal 374
 Snow, L. M., 143, 444
 Societies, plant of Kent County, Michi-
 gan 36
 Sohns-Laubach, H. Graf zu, personal 231
 Spalding, V. M., personal 374
Spartina cynosuroides 216; *glabra* 217;
polystachya 216
Sphaeria epiphylla 128
Sphaeroplea annulina Braunii 322
Spiraea salicifolia, Cushman on 301
Spirogyra, Gerassimow on 224
 Spore, behavior of chromosomes in
 mother cells 250; of *Selaginella*,
 Denke on 371
 Sporelings of *Oedogonium*, Fritsch on
 299
Sporocystis, Morgan on 146
 Sporogenesis in *Saprolegnia* 247
 Sporophylls, Hallier on 223; of *Lyc-
 opodium rigidum*, Bower on 440
 Sporophyte, Bower's theory of 285
Stachybotryella, Ellis and Bartholomew
 on 146
 Starch grain, Kraemer on structure
 of 65
 Starch in root cap of *Allium Cepa*,
 Husek on 141

Stelar system of vascular plants, Schoute on 144
 Stenzel, work of 301
 Stephani, F., work of 222
 Stevens, Adeline C., 405
 Stevens, F. L., 363, 405
 Stevens, W. C., "Introduction to botany" 438
 Stichococcus bacillaris, Matruchot and Molliard on 68
 Stimulation, chemical 81; Aso on 143; respiration 160
 Storer, F. H., work of 65
 Strasburger, E., work of 71, 211; "Das botanische Practicum" 219
 Stubenrauch, A. V., personal 448
 Styrax, myristicifolius 5; **polyneurus** 5
 Swarm-spores in Hydrodictyon, Timberlake on 68
 Switzerland, Hegi on flora of 142
 Sydow, P. & H., work of 299
 Syncarp, Raymondand on 300
 Synchytrium, decipiens, mitosis in 405; Taraxaci 406

T

Tanacetum vulgare, Cushman on 301
 Taxodium 186, 190
 Taxonomy 72, 146, 222, 299
 Taxus 190
 Tecoma, Northrop on 146
 Teleutospores, Blackman on 441
 Tephrosia, hispida 129; spicata 129; talpa 131; virginiana 129
 Teratology 73, 300
 Terfezia leonis 427
 Terminalia, Northrop on 146
 Thaxter, R., 153; personal 152, 231
 Thigmotropism of roots, Newcombe on 444
 Thistleton-Dyer, W. T., work of 75
 Thornber, J. J., work of 148
 Thrinax, Northrop on 146
 Thuja 186
 Tichosporium, Clements on 300
 Tilden, Josephine E., work of 368
 Timberlake, H. G., work of 68
 Torsion 300; Trottier on 301
 Trachynotia, *cynosuroides* 216; *polystachya* 216
 Tradescantia virginica 251, 252
 Transpiration, mechanisms for prevention of 418
 Treboux, O., work of 227
 Trees, Ayres on Minnesota 149; of Iowa, Pammel on 147; Shimek on 147; in Nebraska, Bessey on 147; Schneider on winter conditions 442; Schoute on monocotyledonous 370

Treub, M., work of 67
 Trillium grandiflorum, Britcher on 300
 Trifolium, nutation 366; pratense, White on connation in 300
 Trottier, work of 301
 Tuber, dryophilum 427; **Lyoni** 431; macrosporum 427; Minnesota species of 427; nitidum 431; rufum 431
 Tulipa Gesneriana, Penzig on ascidia of 74
 Tumboa 192

U

Ulmus campestris, Trottier on ascidia in 301
 Ulva, Collins on 222
 Underwood, L. M., personal 231, 447; work of 65, 72, 146, 222
 United States Department of Agriculture, appropriation for 374
 Urban, I., work of 73; "Symbolae Antillanae" 61
 Uredineae, Arthur and Holway on American 73, 222; cultures of 10; Sydow on 299
 Uredo, dispersa in grasses, Ward on 372; rubigo-vera 13, 22
 Uromyces, Aristidae 17, 22; deciduus 118; Euphorbiae 12, 22; Halstedii 11; Junci 11; Sporoboli 11; *versatilis* 118
 Urticaceae, Engler on 73
 Utricularia, Kamienski on 73

V

Vacuoles, formation of 307
 Vail, Anna M., work of 146
 Vanilla, Northrop on 146
 Vaniot, E., work of 72
 Vernon, H. M., "Variation in animals and plants" 437
 Vöchting, H., work of 441
 Volvox, Molisch on amoebae in 442
 Von Schrenk, H., "A disease of the white ash" 296
 Van Tieghem, Ph., work of 72
 Vascular plants, Schoute on stelar system of 144
 Vaucheria, phylogeny of 334
 Vegetation, in Kansas, Westgate on 147; of Minnesota, Wheeler on 149; of the Mississippi River, Fitzpatrick on 141; of Texas, Bray on 147; upon Krakatoa, Penzig on 228
 Viola, Greene on 72; Cushman on 301
 Violaceae, Engler on 73

W

Wagner, A., personal 78
Ward, H. Marshall, work of 372
Water, in plants, Kurzwelly on 442;
of soil, Hedgecock on 148
Webber, H. J., personal 78
Weevers, Th., work of 370
Weiss, F. E., work of 64
Went, F. A. F. C., 432
Westgate, J. M., 139, 141, 142, 147
Wheeler, W. A., work of 149, 297
Whitford, H. N., 59, 60
White, work of 300
Wilczek, E., work of 146
Wieland, G. R., personal 303
Wiesner, J., work of 64; "Die Roh-
stoffe des Pflanzenreiches" 220
Williams, F. N., work of 73
Willis, J. C., work of 145
Willkommia *texana* 283
Wilson, P., personal 376
Woodlands of Indian Territory, Fitch
on 147

Woods, A. F., personal 78
Worcester's killing fluid 209
Woronin, M., death of 374
Worsdell, W. C., work of 298

X

Xenia, Eichler on 76
Xylophagaceae, Murrill on 220
Xylosma, Northrop on 146

Y

Yanagawa, S., work of 445
Yendo, K., work of 368
Yucca, *filamentosa*, *microsporangium*
of 209; *gloriosa*, Vesque on 211

Z

Zahlbruckner, A., work of 73
Zamia, embryology of 184; *Tuerck-
heimii* 8